REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-11 are pending in the present application with Claims 10 and 11 withdrawn from consideration. Claims 1, 3, 4, and 8 are amended by the present amendment.

In the outstanding Office Action, Claims 1, 2, and 4 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jyumonji et al. (U.S. Patent No. 6,870,126, herein "Jyumonji") or Nakata et al. (A New Nucleation-Site-Control Excimer-Laser-Crystallization Method, Jpn. J. Appl. Phys. vol. 40, pps. 3049-3054, herein "Nakata"); and Claims 3 and 5-9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jyumonji or Nakata.

Applicants thank the Examiner for the courtesy of an interview extended to Applicants' representative on October 19, 2006. During the interview, the differences between the claims and the applied art were discussed. Further, clarifying claim amendments, similar to those presented herewith, were also discussed. The Examiner indicated that he would further consider the claims when a formal response is filed. Arguments presented during the interview are reiterated below.

In view of the rejections of the claims on the merits, independent Claims 1 and 3 have been amended to more clearly recite how a value α of a light intensity is selected within a certain range by combining light beams having a light intensity distribution with an inverse peak pattern and light beams having a substantially homogeneous light intensity distribution. The claim amendments find support in Figure 3 and its corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to a crystallization apparatus which includes an irradiation system which is used to irradiate at least one of a polycrystalline semiconductor film or amorphous semiconductor film with light beams

having a light intensity distribution with an inverse peak pattern. A light intensity value α of the inverse peak is selected within a range of 0.2 to 0.8 by irradiating over the light intensity distribution with an inverse peak pattern light beams having a substantially homogeneous light intensity distribution.

In a non-limiting example, Figure 1 shows the crystallization apparatus that is capable of producing the light intensity distribution 1 (see Figure 3) with an inverse peak and the substantially homogeneous light intensity 2 (see Figure 3).

As discussed during the interview, the value α of the combined light beams shown in Figure 3 is adjusted by modifying the homogeneous light intensity such that, as shown for example in Figure 4B, the value α is between a range of 0.2 and 0.8.

As discussed in the specification at page 23, lines 14-24, for a value α of 0.2, a crystal growth from α-Si to p-Si does not occur, and for a value α of 0.8, an aberration does not occur and the crystallization advances from p-Si to a maximum in particle size, as also disclosed in the specification at page 25, line 25, to page 26, line 3, and at page 26, lines 10-19.

Turning to the applied art, Applicants note that Jyumonji has a filing date of September 24, 2003, while this application has a filing date of March 18, 2004. Therefore, Jyumonji might qualify as prior art under 35 U.S.C. § 102(e)/103(a) and not under 35 U.S.C. § 102(b)/103(a).

However, Applicants note that Jyumonji and the present application where, at the time the claimed invention was made, owned by, or subject to an obligation of assignment to, the same person. In other words, the present application and the Jyumonji reference, where, at the time the invention of this application was made, owed by Advanced LCD Technologies Development Center Co. In view of the above noted facts and based on MPEP § 706.02(l)(2)

II, it is believed that common ownership of this application and Jyumonji has been established.

Accordingly, Applicants respectfully submit that under 35 U.S.C. § 103(c) Jyumonji is disqualified as prior art.

Nakata discloses a new nucleation-site-control excimer-laser-crystallization method for obtaining a temperature profile as shown in Figure 1(c) on a sample shown in Figure 1(a). The profile shown in Figure 1(c) is obtained by using a phase shift mask that is placed at a distance d from the sample as shown in Figure 1(a). Nakata discloses only modifying a distance d and a phase-retardation of a phase shifter. As further shown in Figure 2, Nakata modifies both the minimum intensity level of the light distribution and the shape of the light distribution by modifying either the distance or the phase-retardation angle.

Furthermore, as discussed during the interview, Nakata does not teach or suggest superposing (i) a light intensity distribution with an inverse peak pattern, and (ii) a light having a substantially homogeneous intensity in order to select a light intensity value α of the inverse peak as required by amended independent Claims 1 and 3.

Accordingly, it is respectfully submitted that independent Claims 1 and 3 and each of the claims depending therefrom patentably distinguish over Nakata.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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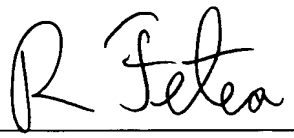

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